Remarks

The Examiner is thanked for the courtesies extended Applicant's Attorney and the Assignee's European Counsel, Mr. David Coker, during an interview which occurred on December 14, 2004. Some agreements were reached during this interview while other matters were briefly discussed and the Examiner put off making a decision on them until after reviewing this response.

First, the rejections under 35 USC 112, second paragraph were discussed. The alternative language to "opening and maintaining an information block flow" from in old claim 1 was discussed in some detail and the alternative language now found in claim 1 was discussed as a possible alterative language. The Examiner expressed his satisfaction with the language provided there exist proper antecedents for the terms "a protocol stack" and "a topmost layer". It is noted, in passing, the old form of claim 1 used those very same terms without objection by the Examiner. Nevertheless, in amended claim 1 the Applicant now refers to "a protocol layer" and "a topmost layer" in a sincere effort to address this possible issue.

Second the terms to which the Examine objected in claims 4, 7, 12, 15, 17, 19 and 21 were discussed as were possible ways of overcoming this issue. While the specific claim language proposed above was not discussed with the Examiner, the general approach discussed with the Examiner (to define the terms somewhat in the claims) has been adopted and it is hoped with the rejections of these claims under 35 USC 112, second paragraph, have now been overcome.

Third, the terms "bit error rate" and "block error rate" were discussed. The Examiner initially took the position that one could be derived from the other. The undersigned disagreed, posing the following example. Assume that a block of data comprises 256 character (bytes) of data. Assume that 1000 blocks are transmitted that there are 50 bit errors total in those 1000 blocks. Well, if all 50 bit

errors occur in a single block then the block error rate is 1/1000 or 0.1%. On the other hand, if each bit error occurs in a different block, then the block error rate is 50/1000 or 5%. Obviously, one cannot be simply calculated knowing the other. The Examiner agreed with this assertion.

Fourth, the prior art was next discussed. The Examiner volunteered that his analysis of the term "L" in the latest official action was not correct in that the term "L" could not be a rate given the formulas provided in the citation. The Applicant agrees.

The Examiner then asserted that the term "block error rate" was unclear since it is not used in a consistent fashion in the art. The undersigned, in response, noted that if that were the case, then the Applicant would be pleased to address that issue, but the Examiner has not cited anything to support that contention. In the meantime the Applicant has made certain investigations and can note the following. The GSM/GPRS specifications equate the acronym BLER with "Block Error Ratio" as opposed to "Block Error Rate". See the relevant pages from draft EN 300 607-1 and 3GPP TS 51.010-1 (copies attached). However, the relevant technological community has not always been uniform the its use of these terms. See, for example, TSG-RAN meeting #6, Nice France, 13-15 December 1999 (copy attached). This point is discussed further below, but the Examiner will note that the Applicant has amended the claims to use the word "ratio" as opposed to "rate" since it seems to be the better choice for the acronym BLER used in the specification.

The undersigned then directed the Examiner's attention to claim 22 which recites, inter alia, "wherein at least some of the message blocks are intentionally constructed to be discarded following receipt and processing thereof to return an ack/nack message." The undersigned noted it was not understood where this limitation was allegedly shown or suggested in the prior art. The Examiner

indicated that this should be pointed out in the next response. That has been done (in the past) and again is being done by this response.

Next it was noted, in terms of claim 1, that the claim recites "monitoring ack/nack messages sent in response to the message blocks ..." and given the fact that in the cited reference (Sato) the error calculation (whatever that might be) is done at the receiver (see column 17, lines 61-62). Well if that calculation is done at the receiver, the receiver certainly is not going to "monitor" "ack/nack messages sent in response to the message blocks" as claimed by claim 1. The Examiner voiced no opinion on this issue and suggested that it be discussed in the written response.

With that the interview concluded.

The rejection under 35 USC 112, second paragraph

Claims 1-8 are rejected under 35 USC 112, second paragraph in the present official action. The Examiner rejects claim 1 since the language of claim 1, as "emphasized" by Applicant is subject to multiple interpretations. The Applicant has a couple of observations to make in response:

- (1) The Examiner talks about the "emphasis" provided by the Applicant with respect to the quoted claim language. In Amendment A the Applicant merely quoted the language of claim 1 which could not be found in the prior art reference. The Applicant quoted the language verbatim. No intended (or unintended) interpretation of the claim language was set forth in the response. The Examiners assertion to the contrary is not supported by the record.
- (2) . The Applicant believes that there is nothing in the US Patent Law that requires that the claims be limited solely to the disclosed embodiment(s) or that the claims cannot be broad enough to read on

multiple embodiments. Otherwise, an application would only have a single claim that would be as long as the specification.

While the Applicant believes that the rejection is non-statutory and should be withdrawn, the Applicant has proposed alternative language which the applicant considers to be equally broad as the original language. Since the Examiner also seems to be pleased with this alternative language, the Applicant is to prepared to have this application proceed with the amended language of the claims.

The prior art rejection of claim 22

Claim 22 recites, *inter alia*, "wherein at least some of the message blocks are intentionally constructed to be discarded following receipt and processing thereof to return an ack/nack message." It is not understood where this limitation is allegedly shown or suggested in Sato cited by the Examiner. The Examiner's analysis is silent with respect to this limitation so the Applicant has no idea why this claim is being rejected on prior art grounds.

Prior art rejections of the independent claims

The independent Claims recite either "monitoring ack/nack messages sent in response to the message blocks" or "a monitor for monitoring ack/nack messages sent in response". Where are these limitations taught by Sato? When analyzing the claims in view of the prior art it would be truly helpful if the Examiner considered each and every limitation of the claims.

The meaning of BLER (BLock Error Rate)

In amendment A the Applicant pointed the Examiner to a web page which defines this term (www.discdupe.org/i/bler.htm). A copy of this page and its referring pages (www.discdupe.org/i/evaluations.htm) are enclosed. These pages are published by the International Disc Duplicating Association. Also enclosed is another internet page which discusses a digital radio transmitter tester which tests for both BER and BLER and the webpage has links defining those terms. A copy of the webpage

(www.anritsu.co.jp/E/News_Events/030224e.asp) and the provided definition of BLER is also enclosed. In one instance the rate is defined as the "number of date blocks per second" that contain detectable errors while in the other case the BLER is defined as "the count of block containing error divided by the total block count".

The first definition is rate related while the second is clearly a ratio. While these two definitions are different, they are fundamentally very similar ways of reporting errors which occur in blocks of data as opposed errors which occur on a bit, byte or word basis. There is also a DoD page available on the Internet (see www.dacs.dtic.mil/databases/acronym_display.hts?beginAcronym=B - copy attached) which still uses the rate definition. However, given the documents referred to above, it appears that "ratio" is nevertheless the better term.

As such, in addition to amending the claims, consistent amendments have been made to the specification as well.

Reconsideration is respectfully requested.

The Commissioner is authorized to charge any additional fees, which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136 (a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

I hereby certify that this correspondence is being deposited with the United States Post Office with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents PO Box 1450, Alexandria, VA 22313-1450 on

December 16, 2004 (Date of Deposit) Corinda Humphrey

(Name of Person Signing)

(Signature) December 16, 2004

(Date)

Respectfully submitted,

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Draft EN 300 607-1 V8.0.0 (1999-12)

European Standard (Telecommunications series)

Digital cellular telecommunications system (Phase 2+);
Mobile Station (MS) conformance specification;
Part 1: Conformance specification
(GSM 11.10-1 version 8.0.0 Release 1999)





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14.9.5 Test requirements

If the MS answers all pagings with a CHANNEL REQUEST the requirements are met.

NOTE: The probability for a good MS to fail this test is less than 1%.

- 14.10 [Reserved for future GSM test]
- 14.11 [Reserved for future GSM test]
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- 14.14 [Reserved for future GSM test]
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- 14.16 GPRS receiver tests

Statistical testing of receiver BLER performance

Error Definition

Block Error Ratio (BLER):

The Block Error Ratio is the ratio of blocks received in error to the total number of received blocks, where a block is defined as received in error if the error detection functions in the receiver, operating in accordance with GSM 05.03, indicate an error as a the result of the Block Check Sequence (BCS).

For USF the Block Error Ratio is the ratio of incorrectly interpreted USF to the total number of received USF.

Test criteria

In the receiver tests for circuit switched channels, test error rates have been defined in order not to pass MS with a performance worse than the specification by 1 dB, with tests to to be performed at the sensitivity and interference levels defined in GSM 05.05. For circuit switched channels GSM 05.05 defines the error rates at a fixed sensitivity or interference level.

For packet switched channels GSM 05.05 defines the receive or interference level at which a fixed Block Error Ratio is met. Therefore, for GPRS the receiver is tested with a 1 dB offset in the receive level and the interference level.

If the error events can be assumed to be random independent variables, outputs of stationary random processes with identical Gaussian distributions, the previous figures suggest a number of events not lower than 200 in AWGN channel and not lower than 600 in a multipath environment.

For multipath propagation conditions the hypothesis of stationary random processes does not generally hold. In case of non frequency hopping operation mode, the radio channel may be assumed to change 10 times per wavelength of travelled distance and to be short term stationary in between. So, in this case, the required observation time for having good statistical properties should not be lower (with some rounding) than that reported in table 14.16-1.

3GPP TS 51.010-1 V6.0.1 (2004-12)

Technical Specification

3rd Generation Partnership Project; Technical Specification Group GSM/EDGE Radio Access Network Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (Release 6)





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14.2.5	Reference sensitivity - full rate data channels	
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14.8	AM suppression	
14.8.1	AM suppression - speech channels	
14.8.2	AM suppression - control channels	
14.9	Paging performance at high input levels	
14.10	Performance of the Codec Mode Request Generation for Adaptive Multi-Rate Codecs	
14.10.1 14.10.2	Performance of the Codec Mode Request Generation – TCH/AFS Performance of the Codec Mode Request Generation – TCH/AHS	
14.10.2	(void)	
14.11	(void)	
14.12	(void)	
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Event	Maximum allowed error rate	Minimum No. of samples
C/I increases over Thresholds	11%	2000
C/I decreases below Thresholds	11%	2000

- 14.11 (void)
- 14.12 (void)
- 14.13 (void)
- 14.14 (void)
- 14.15 (void)

14.16 GPRS receiver tests

Statistical testing of receiver BLER performance

Error Definition

Block Error Ratio (BLER):

The Block Error Ratio is the ratio of blocks received in error to the total number of received blocks, where a block is defined as received in error if the error detection functions in the receiver, operating in accordance with 3GPP TS 05.03, indicate an error as a the result of the Block Check Sequence (BCS).

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Test criteria

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For packet switched channels 3GPP TS 05.05 defines the receive or interference level at which a fixed Block Error Ratio is met. Therefore, for GPRS the receiver is tested with a 1 dB offset in the receive level and the interference level.

If the error events can be assumed to be random independent variables, outputs of stationary random processes with identical Gaussian distributions, the previous figures suggest a number of events not lower than 200 in AWGN channel and not lower than 600 in a multipath environment.

For multipath propagation conditions the hypothesis of stationary random processes does not generally hold. In case of non frequency hopping operation mode, the radio channel may be assumed to change 10 times per wavelength of travelled distance and to be short term stationary in between. So, in this case, the required observation time for having good statistical properties should not be lower (with some rounding) than that reported in table 14.16-1.

TSG-RAN meeting #6 Nice, France, 13-15 December 1999 TSG-RAN RP99791

TSG-RAN WG4 meeting #9
Bath, U.K., 7th to 10th of December, 1999

TSGR4#9(99)959

Source:

TSG RAN WG4

To:

TSG RAN, TSG SA

Title:

Liaison Statement on Change of Abbreviation of BER/BLER to Bit Error

Ratio/Block Error Ratio

WG4 would like to ask TSG RAN and TSG SA for some guidance regarding abbreviation of terms of BER and BLER which are widely used in 3GPP specification documents. RAN WG4 would welcome the opinion of TSG RAN and TSG SA on this matter.

Background

Vocabulary document TR 25.990 [1] summarises a collection of terms and abbreviation to be used in 3GPP specification documents, where it is clearly defined that abbreviation of BER and BLER is "Bit Error Rate" and "Block Error Rate," respectively. On the other hand, ITU-T Recommendation [2] gives corresponding abbreviation as "Bit Error Ratio."

It was proposed and agreed at RAN WG4#9 meeting that abbreviation of BER should be changed from "Bit Error Rate" to "Bit Error Ratio," and from "Block Error Rate" to "Block Error Ratio." Rationale behind this decision is that actual measured value is "ratio" of the number of erroneous bits (or blocks) to the number of total bits (or blocks) received and that a term of "rate" may imply a variable which changes in relation with time. In addition, it is also beneficial to keep consistency of terms used in 3GPP with those defined by ITU-R,

Proposal

Considering of above justification, RAN WG4 would like to ask TSG RAN and TSG SA for approval of changing abbreviation of a term of BER/BLER. It should be noted that consequence is that 3GPP needs accordingly to change related tables in all of 3GPP specification documents where the abbreviation is defined once such decision is made at TSG RAN.

Reference

- [1] TR 25.990 v3.0.0, "Vocabulary"
- [2] ITU-T Recommendation, G.821

CD-R Evaluations

Various discs were tested using a Clover CD Analyzer for CD-R tests, and K-Probe for DVD-R tests.

The tests are not intended to be comprehensive, but cover only Block Error Rates.

Recent CD-R tests from May 2004 available as PDF (297 kB) for Members Only Recent DVD-R tests from June 2004 available as PDF (329 kB) for Members Only

Disclaimer

Tested during 2003:

Disc Brand	Manufacturer	Recorder	Average BLER	Peak BLER	Total E22	Total E32
		PlexWriter 8/20	7.9	38	7	0
Unbranded	Grand Advance Technology	Panasonic	3.3	40	21	0
Officialided		MediaFORM SmartDrive 16	14.8	52	0	0
Australia Post	CMC Magnetics Corp.	Lite-On	3.9	47	0	0
Brackley	Multi Media Masters &	Panasonic	3.4	29	0	0
OD DOG DD 400\44	Machinery SA		11.3	41	0	0
CD-R80-BP-100W		MediaFORM	10.9	104	1511	25
	Prodisc technology Inc.	SmartDrive 16	21.4	83	871	30
CD-R80-DS-100W	•		6.6	39	101	0
	Ricoh Company Ltd	Audio Design 1x	7.7	77	127	0
HHB Silver 1x-16x			6.6	45	0	0
		Lite-On	3.5	37	0	0
HHB Gold 1x-8x	Mitsui Toatsu Chemicals, Inc.	Audio Design 1x	48.3	95	16	0
HILD GOID 1X-0X		Lite-On	10	37	0	0
	Ritek Co.	MediaFORM SmartDrive 16	1.2	22	0	0
-		Teac 58-S	2.7	25	0	0
Ritek 80		Teac 58-S	2.4	23	0	0
		Panasonic	1.5	25	0	0
		Panasonic	1.4	27	0	0
		MediaFORM SmartDrive 16	1	14	0	0
		Teac 58-S 5.8 60	0	0		
That's CD-R 80	D-R 80 Taiyo Yuden Company Ltd	Teac 58-S	0.4	14	0	0
		Panasonic	0.4	22	0	0
		Panasonic	0.5	12	0	0
		Lite-On	1.5	19	0	0

30

0

The discs listed above were tested during 2003. Archived results of older discs can be seen here.

Disclaimer

These recordable discs have been tested as a free service for members of the IDDA as a guide only, and the IDDA and any organizations that have assisted with the tests accept no responsibility for the accuracy of these evaluations and the use of the data.

Whilst care has been taken with these evaluations, they are to be considered a rough guide only. Many factors can affect the results, such as the testing equipment, the recorder used, recording speed, ambient conditions, and even wear and condition of the stamper used to make the disc. **Disc brands and qualities will also vary between states and countries, and from batch to batch.**

The IDDA has at this stage tested only for BLER (Block Error Rates), as we believe that for recordable discs this is the most useful test of the recordability and playability of the discs. If the discs are good, then we have enough information. If the discs are bad, then there is a variety of other tests that are required to determine why the disc is bad, such as tests for eccentricity, reflectivity, jitter, to name a few. These other tests are not covered here.

The manufacturer stated is based on results obtained using "CDR Identifier" software, and it is acknowledged that at best, this is an indicator of the manufacturer of the stamper used to create the discs, not necessarily the actual manufacturer. Members may download a copy of "CDR Identifier" (212 kb). You may also view the "ReadMe" text file that came with the program.

The IDDA invites members, users and manufacturers to contribute and submit their own tests, and to send the results of any tests by any testing equipment along with two clean, unused discs in standard jewel cases for verification to

International Disc Duplicating Association, Shop 8.06, 100 Miller Street North Sydney NSW 2060 Australia

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Types of Errors

Various discs were tested using a Clover CD Analyzer.

The tests are not intended to be comprehensive, but cover only Block Error Rates. This is nonetheless a good indicator of whether or not the disc is good.

WHAT ARE ERRORS?

Block errors on a disc are not a physical thing. They are a manifestation of how a disc interacts with a player. So different players can produce different error-rates from the same disc. Although there are rigid specifications that define what a CD should be, there are no such specifications for players. Therfore, to ensure wide compatibility, discs should have low errors. Additionally, a disc that is unreadable on one player, may seem to perform well on another.

The CIRC error correction used in CD players uses two stages of error correction called C1 and C2, with de-interleaving of the data between the stages. The error correction chip can correct two bad symbols per block in the first stage and up to four bad symbols in the second stage.

BLER

BLER, or Block Error Rate, is the number of data blocks per second that contain detectable errors at the input of the C1 decoder. The "Red Book" specification allows BLER up to 220 per second averaged over 10 seconds. These days, with high speed readers commonplace, the generally accepted maximum is 50.

E11, E21, E31

An E11 error means one bad symbol was corrected at the C1 stage. An E21 error means two bad symbols corrected at the C1 stage. E31 means three or more bad symbols at the C1 stage, and is uncorrectable at C1 and so is passed on to the C2 stage.

Because the data is de-interleaved between the stages, each of the bad symbols is now in separate blocks, and so they can be handled by the C2 stage. As a result of the interleaving, one uncorrectable symbol at C1 can become up to 28 bad symbols at C2, which is why E12 is often much higher than E31.

E12, E22, E32

An E12 error means that one bad symbol was corrected at the C2 stage. E22 is two bad symbols, and E32 is three or more bad symbols at C2 and therefore cannot be corrected. It is theoretically possible for C2 to correct four bad symbols, but not all players can do so. To allow for high compatibility, we consider E32 to be uncorrectable, even though some drives may be able to correct it.

For more information on testing discs, check the Web site for Media Sciences.

Back

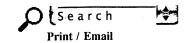
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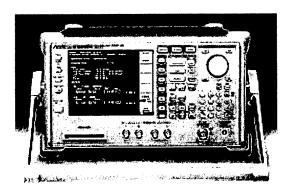
Anritsu News Magazine

Product Search

Recent Published Materials

February 24, 2003

Industry's First BER/BLER Measurement of Stand-alone RF Units for Mobile Telephone Terminals



W-CDMA BER/BLER Measurement Software and Demodulation Unit for Digital Mobile Radio Transmitter Tester

Anritsu Corporation (President Akira Shiomi) announced that it will commence marketing the industry's first system for performing BER/BLER measurement of stand-alone RF modules[*1] for 3G W-CDMA mobile telephone terminals from 27 February 2003. The announced system is composed of the MU860820A/MU860920A Demodulation Unit and the MX860820A/MX860920A W-CDMA BER/BLER Measurement Software for the Anritsu MS8608A/MS8609A Digital Mobile Radio Transmission Tester.

When the Demodulation Unit and W-CDMA BER[*2]/BLER[*3] Measurement Software are installed in the Digital Mobile Radio Transmission Tester and used in combination with the Anritsu MG3681A Digital Modulation Signal Generator, it will become possible for the first time in the industry to perform BER/BLER measurement of stand-alone RF receiver modules for 3G W-CDMA mobile telephone terminals. Previously, these measurements have only been possible after the RF unit is installed in the mobile terminal. Being able to perform the same evaluation before and after installation of the RF unit will increase the reliability and efficiency of manufacturing and testing.

MU860820A: Demodulation Unit for Digital Mobile Radio Transmission Tester(MS8608A)

MU860920A: Demodulation Unit for Digital Mobile Radio Transmission Tester(MS8609A)

MX860820A: Measurement Software for Digital Mobile Radio Transmission Tester(MS8608A)

MX860920A: Measurement Software for Digital Mobile Radio

Transmission Tester(MS8609A)

MS8608A/MS8609A Digital Mobile Radio Transmission Tester This precision signal analyzer has a wide range of applications in R&D and manufacturing of mobile communications equipment and related devices as well as in installation and maintenance of base stations. The spectrum-analysis function covers a wide frequency range from 9 kHz to either 7.8 or 13.2 GHz and the tester also incorporates both DSP for high-speed modulation analysis and a high-accuracy power meter.

[Development Background]

Previously, the RF unit of mobile telephone terminals was evaluated by performing separate analysis of each device used in the unit based on NF[*4] and breakdown measurement performed by the parts and module manufacturers. And, since overall evaluation of mobile telephone terminals requires standardized BER/BLER measurement of the RF unit, mobile telephone makers have been forced to install purchased RF units in their mobile telephones before performing the BER/BLER measurement. However, for improved reliability, there is an urgent need to perform BER/BLER measurement of stand-alone RF units before installation of the RF unit in the mobile telephone. Furthermore, the RF unit is becoming more modularized due to the recent trend in mobile telephones towards compact size, higher parts density and higher functionality, making it difficult toperform separate measurements for each device. As a result, there was an urgent need for a method that could perform batch testing of RF units. Anritsu developed the MX860820A/MX860920A W-CDMA BER/BLER Measurement Software and MU860820A/MU860920A Demodulation Unit announced today to satisfy these needs, producing the industry's first solution for high-reliability BER/BLER batch measurement of stand-alone RF units used in 3G W-CDMA mobile telephone terminals.

[Product Outline]

The MX860820A/MX860920A W-CDMA BER/BLER Measurement Software and MU860820A/MU86-0920A Demodulation Unit are installed in the Anritsu MS8608A/MS8609A Digital Mobile Radio Transmission Tester and are used with the Anritsu MG3681A Digital Modulation Signal Generator to configure a BER/BLER measurement system for batch evaluation of stand-alone RF units used in mobile telephone terminals.

[Main Features and Functions]

* BER/BLER Measurement at module level

- Quality evaluation using BER/BLER measurement of RF modules for W-CDMA mobile telephones and direct conversion IC[*5] (however, only supports I,Q[*6] input)
- BER Measurement with/without decoding signal using decoding signal ON/OFF switching (BLER measurement only possible with

decoding signal)

- * Output of demodulation data for log as well as I,Q level data for module output control from back panel of Transmitter Tester
 - Demodulation data (Data, Clock, Enable, Error) for obtaining a log is output from the back panel of the Transmitter Tester; this can be used to troubleshoot problems.
 - Three types of input to the I,Q terminal (Total Power, Code Power (CPICH[*7], DPCH[*8]) are output from the back panel of the Transmission Tester as 12-bit and Serial signals; this can be used as module output control data.

[Target Markets and Applications]

* Makers of parts and modules for W-CDMA mobile telephone terminals and manufacturers of mobile telephones

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[Glossary]

[*3] BLER:BLock Error Rate

Abbreviation for BLock Error Rate

The block error rate is calculated as the count of blocks containing errors divided by the total block count. The signal is transmitted in block units on the transmission circuit.

close

ACRONYM

DoD and Information Technology (DoD/IT) Acronyms

$\underline{A \mid B \mid C \mid D \mid E \mid F \mid G \mid \underline{H} \mid I \mid \underline{J} \mid \underline{K} \mid \underline{L} \mid \underline{M} \mid \underline{N} \mid Q \mid P \mid Q \mid \underline{R} \mid \underline{S} \mid \underline{T} \mid \underline{U} \mid \underline{Y} \mid \underline{W} \mid \underline{X} \mid \underline{Y} \mid \underline{Z} \mid \underline{Non-alpha}$

\mathbf{B}

DESCRIPTION

ACRONYM	DESCRIPTION
B&I	Business and Industrial Loan Program
B&P	Bid and Proposal
B&P	Block Parity
B-HLI	Broadband High Layer Information
B-ISDN	Broadband Integrated Services Digital Network
B-ISUP	Broadband ISDN User Part
B-LII	Broadband Lower Layer Information
B-NT	Broadband Network Termination
B-PISN	Broadband Private Integrated Services Network
B-PON	Broadband Passive Optical Network
B-UNI	Broadband User Network Interface
B-VOP	Bidirectional Video Object Planes
B/U	Back Up
B2B	Business to Business
B2C	Business to Consumer
B2D	Business to Distributor
B2E	Business to Employee
B2G	Business to Government
B2P	Business to Person
В3	level of security assurance
BA	Basic Access
BA	Basic Allowances
BA	Battlefield Awareness
BA	Budget Activity
BA	Business Administration
BA01	Budget Activity 01 - Basic Research
BA02	Budget Activity 02 - Exploratory Development
BA03	Budget Activity 03 - Advance Technology Development
BA04	Budget Activity 04 - Demonstration/Validation
BA05	Budget Activity 05 - Engineering and Manufacturing Development
BA06	Budget Activity 06 - Management Support
BA07	Budget Activity 07 - Operational Systems Development
BAA	Bomber Alert Area

BIU Basic Information Unit
BIU Bus Interface Unit

BIW Business Information Warehouse, SAP

BJT Bipolar Junction Transistor

BL Battle Laboratories

BL Butt Line

BL&P Blind Load and Plug

BLADE-GT Blade Life Analysis and Design Evaluation for Gas Turbines

BLADES Base-Level AUTODIN DDN Exchange System

BLC Base Level Computing

BLCI Base Level Communication Infrastructure

BLD Blade

BLDM Battalion Level Differential Model

BLER Block Error Rate
BLER Block Error Rates
BLERT Block Error Rate Test

BLIS Broadband Loop Emulation Service
BLII Base Level Information Infrastructure

BLING Bladed ring
BLISK Bladed disk
BLK Black

BLKFLT Black Sea Fleet

BLM Bureau of Land Management

BLOB Binary Large OBject
BLOB Binary Large Object
BLOBS Binary Large Objects
BLOS Beyond Line Of Sight

BLPC British Library Public Catalogue

BLRSI Battle Lab Reconfigurable Simulator Initiative

BLRSIM Battle Lab Reconfigurable Simulator

BLS Beach Landing Site
BLS Bureau of Labor Statistics

BLSM Base Level System Modernization

BLSM Base-Level Systems Modernization (USAF)

BLT Battalion Landing Team

BLT Billing, Logistics, and Tracking

BLU Basic Link Unit
BM Ballistic Missile
BM Battle Management
BM Battlefield Maintenance
BM Battlespace Management